

**WHAT IS CLAIMED IS:**

1. A process for treating a disease in a mammalian subject comprising administering to said subject an effective amount of a mammalian intermediary metabolite so as to raise the intracellular or extracellular or serum level of said metabolite in said subject.
2. The process of claim 1, wherein said intermediary metabolite comprises lipids or conjugated biomolecules.
3. The process of claim 2, wherein said conjugated biomolecules comprise glycolipids, lipoproteins and glycoproteins other than antibodies, cytokines or hormones.
4. The process of claim 3, wherein said glycolipid comprises a monosaccharide ceramide.
5. The process of claim 4, wherein said monosaccharide ceramide comprises a glucosyl ceramide and galatosyl ceramide.
6. The process of claim 1, wherein said administering step is carried out by means comprising intravenous means, intramuscular means, subcutaneous means, intraperitoneal means or oral means.
7. The process of claim 1, wherein said disease comprises cancer, an infection or immune dysfunction.

8. The process of claim 7, wherein said infection is viral or bacterial.
9. The process of claim 8, wherein said viral infection comprises HBV, HCV or HIV.
10. The process of claim 7, wherein said immune dysfunction comprises diabetes type I, diabetes type II, rheumatoid arthritis, Crohn's disease, arteriosclerosis and ulcerative colitis.
11. The process of claim 1, wherein said mammalian subject comprises a human.
12. A process for treating a disease in a mammalian subject comprising administering to said subject an effective amount of a reagent that increases the intracellular or extracellular or serum level of a mammalian intermediary metabolite in said subject.
13. The process of claim 12, wherein said intermediary metabolite comprises lipids or conjugated biomolecules.
14. The process of claim 13, wherein said conjugated biomolecules comprise glycolipids, lipoproteins and glycoproteins other than antibodies, cytokines or hormones.
15. The process of claim 14, wherein said glycolipid comprises a monosaccharide ceramide.

16. The process of claim 15, wherein said monosaccharide ceramide comprises a glucosyl ceramide or galatosyl ceramide.
17. The process of claim 12, wherein said administering step is carried out by means comprising intravenous means, intra-muscular means, subcutaneous means, intra-peritoneal means or oral means.
18. The process of claim 12, wherein said disease comprises cancer, an infection or immune dysfunction.
19. The process of claim 18, wherein said infection is viral or bacterial.
20. The process of claim 19, wherein said viral infection comprises HBV, HCV or HIV.
21. The process of claim 18, wherein said immune dysfunction comprises diabetes type I, diabetes type II, rheumatoid arthritis, Crohn's disease, arteriosclerosis and ulcerative colitis.
22. The process of claim 12, wherein said reagent increases the rate of production of said mammalian intermediary metabolite in said subject.
23. The process of claim 12, wherein said reagent decreases the rate of degradation or turnover of said mammalian intermediary metabolite in said subject.
24. The process of claim 12, wherein said mammalian subject comprises a human.

25. A process for treating a disease in a mammalian subject comprising:

- a) obtaining cells from said subject;
- b) treating said cells with an effective amount of a mammalian intermediary metabolite so as to raise the intracellular level of said metabolite in said cells; and
- c) transferring said treated cells to said subject.

26. The process of claim 25, wherein said intermediary metabolite comprises lipids or conjugated biomolecules.

27. The process of claim 26, wherein said conjugated biomolecules comprise glycolipids, lipoproteins and glycoproteins other than antibodies, cytokines or hormones.

28. The process of claim 27, wherein said glycolipid comprises a monosaccharide ceramide.

29. The process of claim 28, wherein said monosaccharide ceramide comprises a glucosyl ceramide and galatosyl ceramide.

30. The process of claim 25, wherein said transferring step is carried out by intravenous means.

31. The process of claim 25, wherein said disease comprises cancer, an infection or immune dysfunction.

32. The process of claim 31, wherein said infection is viral or bacterial.
33. The process of claim 32, wherein said viral infection comprises HBV, HCV or HIV.
34. The process of claim 31, wherein said immune dysfunction comprises diabetes type I, diabetes type II, rheumatoid arthritis, Crohn's disease, arteriosclerosis and ulcerative colitis.
35. The process of claim 25, wherein cells obtained from said subject comprise peripheral blood monocytes (PBMCs), dendritic cells, T cells, stem cells, NK cells, NKT cells and CD1d cells.
36. The process of claim 25, wherein said mammalian subject comprises a human.
37. A process for treating a disease in a mammalian subject comprising:
  - a) obtaining cells from said subject;
  - b) treating said cells with an effective amount of a reagent that increases the intracellular level of a mammalian intermediary metabolite in said cells; and
  - c) transferring said treated cells to said subject.
38. The process of claim 37, wherein said intermediary metabolite comprises lipids or conjugated biomolecules.

39. The process of claim 38, wherein said conjugated biomolecules comprise glycolipids, lipoproteins and glycoproteins other than antibodies, cytokines or hormones.
40. The process of claim 39, wherein said glycolipid comprises a monosaccharide ceramide.
41. The process of claim 40, wherein said monosaccharide ceramide comprises a glucosyl ceramide and galatosyl ceramide.
42. The process of claim 37, wherein said transferring step is carried out by intravenous means.
43. The process of claim 37, wherein said disease comprises cancer, an infection or immune dysfunction.
44. The process of claim 43, wherein said infection is viral or bacterial.
45. The process of claim 44, wherein said viral infection comprises HBV, HCV or HIV.
46. The process of claim 43, wherein said immune dysfunction comprises diabetes type I, diabetes type II, rheumatoid arthritis, Crohn's disease, arteriosclerosis and ulcerative colitis.
47. The process of claim 37, wherein said reagent increases the rate of production of said mammalian intermediary metabolite in said subject.

48. The process of claim 37, wherein said reagent decreases the rate of degradation or turnover of said mammalian intermediary metabolite in said subject.

49. The process of claim 37, wherein cells obtained from said subject comprise peripheral blood monocytes (PBMCs), dendritic cells, T cells, stem cells, NK cells, NKT cells and CD1d cells.

50. A process for treating a disease in a mammalian subject comprising administering to said subject an effective amount of a mammalian metabolite so as to modulate or change at least one component in the immune system of said subject.

51. The process of claim 50, wherein said immune system component comprises cellular, humoral or cytokine elements.

52. The process of claim 50, wherein said modulation or change is specific or non-specific.

53. The process of claim 50, wherein said intermediary metabolite comprises lipids or conjugated biomolecules.

54. The process of claim 53, wherein said conjugated biomolecules comprise glycolipids, lipoproteins and glycoproteins other than antibodies, cytokines or hormones.

55. The process of claim 54, wherein said glycolipid comprises a monosaccharide ceramide.

56. The process of claim 55, wherein said monosaccharide ceramide comprises a glucosyl ceramide and galatosyl ceramide.

57. The process of claim 50, wherein said administering step is carried out by means comprising intravenous means, intra-muscular means, subcutaneous means, intra-peritoneal means or oral means.

58. The process of claim 50, wherein said disease comprises cancer, an infection or immune dysfunction.

59. The process of claim 58, wherein said infection is viral or bacterial.

60. The process of claim 59, wherein said viral infection comprises HBV, HCV or HIV.

61. The process of claim 58, wherein said immune dysfunction comprises diabetes type I, diabetes type II, rheumatoid arthritis, Crohn's disease, arteriosclerosis and ulcerative colitis.

62. The process of claim 50, wherein said mammalian subject comprises a human.

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